Model	QQ 7110	**Trouble Category**	Engine
Road Mileage	40,000 KM		

Possible Trouble(s):

The engine gives out black smoke and its fuel consumption increases.

Trouble Analysis:

The vehicle¡s fault symptom is obvious, but the engine fault indicator lamp doesn¡t light. It shows that, for all fault, the engine fault indicator lamp doesn¡t always light. So, during the maintenance, it is a very important step to read out dataflow, but we shall not absolutely believe the dataflow. Since there are at least two connectors from the sensor to ECU, if there are some problems on the connector or harness, the fault symptom will be similar to that of this case. The fault may be caused due to the waste water enters into the connector and thus makes an influence on the working performance of the connector when the vehicle travels on a road with deep water in a rainy day.

Troubleshooting:

In general, there are many reasons to result the engine gives out black smoke. The main reasons focus on: the intake pressure sensor, oxygen sensor and injection nozzle. So, use a diagnostic tester to read out dataflow, and find that the oxygen sensor dataflow reacts slowly and basically lies in a stationary position. So, it can be determined that it is the oxygen sensor failure. In this service station, there is just a same model of QQ vehicle which its other systems is repairing. Subsequently, install the oxygen sensor of the other vehicle on this vehicle, and find that the trouble is removed. What¡s more, after the oxygen sensor of the vehicle with fault is installed on the other vehicle, there is no any fault, and the data from the oxygen sensor is also normal. Check the oxygen sensor of the vehicle with fault again, and find there are some sludge inside the connector. Clean and fasten the connector, and find the fault is thoroughly removed.

Final Measure(s):

Clean the connector.